**Thrills & Chills**

Chapter 3

Activity 7  
Getting Work Done

Goals…

* Recognize that the product of force and distance is the same for lifting the object to the same height no matter what the angle
* Define **work** as W = F • d
* Explain the relationship between work and potential energy
* Define power as the rate of work
* Learn that **watts** are units of power

For You To Read Key Points To Learn

* W = F • d unit is Click here to enter text.
* Force and distance must be in the Click here to enter text.
* How did work compare based on the angle of the incline?
* Should have been the Click here to enter text.
* A Click here to enter text. has no external forces on it and no external work done
* A roller coaster is a closed system when it reaches the Click here to enter text. of the first hill (with the exception ofClick here to enter text.)
* W = mgh (same asClick here to enter text.)
* Roller coaster energy is supplied by a Click here to enter text.
* An Click here to enter text. can have energy added or lose energy
* Click here to enter text.is the rate of doing work or how Click here to enter text. the work is done
* P = W/t unit is Click here to enter text.

What did you learn?

* + A roller coaster Click here to enter text. GPE as it is pulled up to the top of the first hill by a Click here to enter text.
  + At the top the roller coaster is Click here to enter text.
  + You will have to decide on the Click here to enter text. of your first hill when you design your roller coaster!
  + You will need to relate Click here to enter text. to your roller coaster design